Amendments to the Claims

13. (New) An audio signal recording disc encoded by a method which comprises the steps of:

implementing matrix operation among first multiple-channel digital audio signals to generate second multiple-channel audio signals correlating with each other, the first multiple-channel digital audio signals relating to a same sampling frequency;

subjecting the second multiple-channel signals to lossless encoding to convert the second multiple-channel signals into an encoding-resultant signal from which a decoding side can reproduce the second multiple-channel audio signals,

wherein the subjecting step comprises:

1) selecting a first sample among samples of each of the second multiple-channel audio signals for every prescribed interval of frame;

2) selecting one from each channel's different linear prediction methods and predictively encoding each of the second multiple-channel signals according to the selected one of each channel's different linear prediction methods, wherein the each channel's different linear prediction methods are of predicting each of the second multiple-channel audio signals from a past condition of each of the second multiple-channel audio signals for every prescribed interval of subframe which is a subdivision of the frame to generate each channel's different prediction signals for each of the second multiple-channel audio signals, and generating each channel's prediction-error signals representing differences between each of the second multiple-channel audio signals and each channel's different prediction signals respectively, and wherein selected each channel's linear prediction method generates a smallest of each channel's prediction-error signals; and

3) generating a signal of a predetermined format having a header information area and a user data area, wherein the user data area includes an audio packet

having a packet header, and the audio packet includes a private header and an audio data area, and loading the audio data area with the selected first samples from said step 1) of selecting a first sample among samples of each of the second multiple-channel audio signals, the smallest each channel's prediction-error signal generated by the selected linear prediction method from said step 2), and an information piece representing the selected linear prediction methods from said step 2).

14. (New) A method of recording data to or reproducing data from the audio signal recording disc according to claim 13.

15. (New) A method of network-based communication, comprising the steps of:

transmitting and receiving a signal of a predetermined transmission packet format to and from a communication line, wherein the signal has been generated by an audio signal encoding method comprising:

implementing matrix operation among first multiple-channel digital audio signals to generate second multiple-channel audio signals correlating with each other, the first multiple-channel digital audio signals relating to a same sampling frequency;

subjecting the second multiple-channel signals to lossless encoding to convert the second multiple-channel signals into an encoding-resultant signal from which a decoding side can reproduce the second multiple-channel audio signals,

wherein the subjecting step comprises:

1) selecting a first sample among samples of each of the second multiple-channel audio signals for every prescribed interval of frame;

2) selecting one from each channel's different linear prediction methods and predictively encoding each of the second multiple-channel signals according to the selected one of each channel's different linear prediction methods, wherein the each

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channel's different linear prediction methods are of predicting each of the second multiple-channel audio signals from a past condition of each of the second multiple-channel audio signals for every prescribed interval of subframe which is a subdivision of the frame to generate each channel's different prediction signals for each of the second multiple-channel audio signals, and generating each channel's prediction-error signals representing differences between each of the second multiple-channel audio signals and each channel's different prediction signals respectively, and wherein selected each channel's linear prediction method generates a smallest of each channel's prediction-error signal; and

3) generating a signal of a predetermined format having a header information area and a user data area, wherein the user data area includes an audio packet having a packet header, and the audio packet includes a private header and an audio data area, and loading the audio data area with the selected first samples from said step 1) of selecting a first sample among samples of each of the second multiple-channel audio signals, the smallest each channel's prediction-error signal generated by the selected linear prediction method from said step 2), and an information piece representing the selected linear prediction methods from said step 2).

16. (New) A method of reproducing data which is provided via the network-based communication according to claim 15.

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